

WHAT IS CLAIMED IS:

1. A method of efficiently accessing video data stored on a storage medium, comprising:

receiving a stream of video data that includes a sequence of original
5 transport packets, each original transport packet having a first predetermined
number of bytes including video data bytes;

adding a second predetermined number of bytes to the first
predetermined number bytes to create a modified transport packet having a third
predetermined number of bytes; and

10 storing each modified transport packet on a storage medium, wherein the
storage medium is addressable on sector boundaries, each sector having a
predetermined number of user data bytes different from the first predetermined
number of bytes, wherein:

the first byte in a modified transport packet aligns with a first
15 user data byte in a sector after a first predetermined number of sectors
following a previous alignment;

the first byte in an original transport packet aligns with a first
user data byte in a sector after a second predetermined number of sectors
following a previous alignment; and

20 the first predetermined number of sectors is less than the second
predetermined number of sectors.

2. The method of Claim 1, wherein the first predetermined number of bytes
is 188.

3. The method of Claim 1, wherein the second predetermined number of
25 bytes is four so that four bytes are added to each original transport packet.

4. The method of Claim 1, wherein the first predetermined number of bytes
is 188 and wherein the second predetermined number of bytes is four so that the
modified transport packet has a length of 192 bytes.

5. The method of Claim 4, wherein the predetermined number of user data
30 bytes is 512, and wherein the first predetermined number of sectors is three.

6. The method of Claim 1, wherein each original transport packet includes synchronization bytes located at a beginning of each original transport packet, and wherein the second predetermined number of bytes is added in front of the synchronization bytes.

5 7. The method of Claim 1, wherein the predetermined number of user data bytes is 512.

8. The method of Claim 1, wherein each original transport packet includes synchronization bytes located at a beginning of each original transport packet, and wherein the second predetermined number of bytes is inserted behind the
10 synchronization bytes.

9. The method of Claim 1, further comprising passing each modified transport packet through a first buffer prior to storing on the storage medium.

10. The method of Claim 1, further comprising sequentially retrieving the modified transport packets from the storage medium.

15 11. The method of Claim 10, further comprising buffering the sequentially retrieved modified transport packets.

12. The method of Claim 11, further comprising removing from each modified transport packet the second predetermined number of bytes.

13. A system for storing video data, comprising:

a receiver configured to receive a stream of video data that includes a sequence of original transport packets, wherein each original transport packet has a first predetermined number of bytes including video data bytes;

5 a first circuit configured to add a second predetermined number of bytes to each original transport packet to create a modified transport packet having a third predetermined number of bytes; and

a storage medium configured to receive and store each modified transport packet, wherein the storage medium is addressable on sector boundaries, each sector having a predetermined number of user data bytes
10 different from the first predetermined number of bytes, wherein:

the first byte in a modified transport packet aligns with a first user data byte in a sector after a first predetermined number of sectors following a previous alignment;

15 the first byte in an original transport packet aligns with a first user data byte in a sector after a second predetermined number of sectors following a previous alignment; and

the first predetermined number of sectors is less than the second predetermined number of sectors.

20 14. The system of Claim 13, further comprising a second circuit configured to remove the second predetermined number of bytes from each modified transport packet retrieved from the storage device.

25 15. The system of Claim 13, wherein the first predetermined number of bytes is 188 and wherein the second predetermined number of bytes is four so that the modified transport packet has a length of 192 bytes.

30 16. The system of Claim 15, wherein the predetermined number of user data bytes is 512, and wherein the first predetermined number of sectors is three.